AMENDMENTS TO SPECIFICATION:

Please replace paragraph [0012] with the following amended paragraph:

In yet another embodiment, an integrated circuit capable of scaling image data is provided. The integrated circuit includes logic for calculating a gradient value associated with a pixel location of the image data. Logic for determining whether an angle defined by a vector associated with the gradient value and an axis is either a substantially parallel angle or a substantially perpendicular angle is included. Logic for applying a weighted interpolation scheme to the pixel location when 1) the direction is either ~~1)~~ a horizontal direction ~~and~~ or a vertical direction and 2) the gradient value exceeds a threshold value.

Please replace paragraph [0028] with the following amended paragraph:

The embodiments of the present invention provide a method and a system to upscale image data where the sharpness of the edge regions of the original image data ~~are~~ is preserved in the upscaled image. A weighted interpolation scheme ~~that~~ transforms the two dimensional coordinates of the original image through a sigmoidal function so as to place more weight on positions close to tabulated points. The weighted interpolation is selectively applied to both horizontal and vertical edge points. The horizontal and vertical edge components are identified through the use of directional components corresponding to gradient vectors. The calculations of the angle of the gradient and a magnitude of the gradient yield values through which it is determined if the pixel location, i.e., the two dimensional coordinates of the pixel, is associated with a horizontal or vertical edge region. Where the two dimensional coordinates are not associated with a horizontal or edge region, a conventional interpolation technique, e.g., bilinear interpolation, is applied to the image data. In one embodiment, the weighted interpolation scheme is adaptively applied to video data. Here, inter-frame redundancies in the video stream are identified for a current frame in order to eliminate the recalculation of a scaling function applied to a preceding frame of data.